

Ultra Low Capacitance 2 line ESD protection

Data Brief

Main applications

- DVI and HDMI ports up to 1.65 Gb/s
- SATA port up to 3.2 Gb/s
- IEEE1394a, b or c port up to 3.2 Gb/s
- Portable electronics

Description

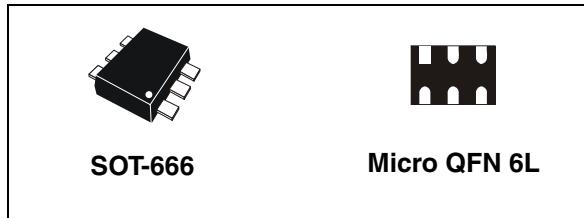
The DVIULC6-2x6, HDMIULC6-2x6 and SATAULC6-2x6 are a monolithic Application Specific Discrete dedicated to ESD protection of high speed interfaces. Its ultra low line capacitance secures a high level of signal integrity without compromising in protecting downstream sensitive chips against the most stringent characterized ESD strikes.

Features

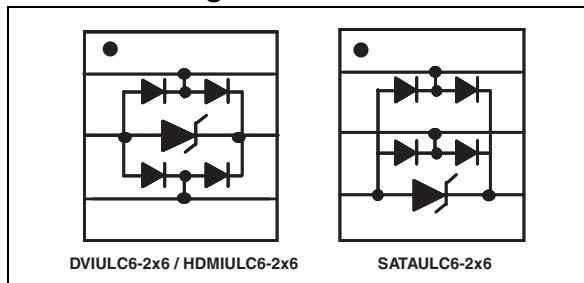
- 2 data lines \pm 15kV ESD protection
- Protect 5 V V_{BUS} when applicable
- Ultra low capacitance: 0.6 pF at F = 825 MHz
- Very low leakage current: 0.5 μ A max.
- Fast response time compared with varistor
- SOT-666 package: 1.60 x 1.60 x 0.55 mm
- μ QFN 6 leads package: 1.45 x 1.00 x 0.55 mm
- RoHS compliant

Benefits

- ESD protection, IEC 61000-4-2 level 4 compliant
 - $> \pm 15$ kV Contact discharge
 - $> \pm 15$ kV Air discharge
- Minimized rise and fall times for maximum data integrity
- **Consistent D+ / D- signal balance:**
 - Best capacitance matching tolerance I/O to GND = 0.015 pF for ultra low inter pair skew
 - Best capacitance matching tolerance I/O to I/O = 0.007 pF for ultra low intra pair skew
 - Matching high bit rate DVI, HDMI, SATA and IEEE 1394 requirements
- Low PCB space consuming
- Low leakage current for longer operation of battery powered devices
- High reliability offered by monolithic integration



Functional diagram



Complies with these standards:

- IEC 61000-4-2 level 4
 - 15 kV air discharge
 - 8 kV (and up to 15 kV) contact discharge

Order code

Part Number	Marking
DVIULC6-2P6	R
DVIULC6-2M6	T
HDMIULC6-2P6	R
HDMIULC6-2M6	T
SATAULC6-2P6	U
SATAULC6-2M6	S

1 Revision history

Date	Revision	Description of Changes
14-Nov-2006	1	First Issue

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